## REMARKS

### Comments regarding Amendments

The claims have been amended to more distinctly define an aspect of the present invention. Specifically, claims 27 and 29 have been amended to specifically recite that the temperature of at least one workstation is controlled by determining the temperature differential between the temperature of the workstation and the predetermined temperature desired for that workstation, and selecting an operating sequence so that when the temperature differential is above a predetermined value, an amount of the fluid is transported to the workstation through a bypass conduit that bypasses a heater corresponding to the workstation. Additionally, when the temperature differential is below a predetermined value, the heater corresponding to the workstation is modulated in order to maintain the temperature of the workstation without bypassing the heater. Antecedent basis for these amendments is located at page 8, lines 1-16 and page 9, lines 5-14.

New claims 32 and 33 are drawn to a preferred embodiment of the present invention, wherein an increased amount of the fluid is transported to the workstation through a bypass conduit that bypasses a heater corresponding to the workstation. This increased amount provides for extremely rapid cooling of the workstation is made possible. Antecedent basis for this amendment is located at page 7, lines 29-32 of the specification.

It is respectfully submitted that these amendments do not introduce new matter. Further, the amendments simplify prosecution by removing issues as discussed more completely below, and place the present application in immediate condition for allowance. Entry of these amendments is therefore earnestly solicited.

### Claim Objections

Claims 27-31 have been rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,308,776.

A terminal disclaimer disclaiming the subject matter of the present claims beyond the term of the '776 patent is attached hereto. It is therefore respectfully submitted that this rejection is overcome. Applicants therefore request that the Examiner withdraw this double patenting rejection.

**Claim rejections under 35 USC 102/103**

Claims 27, 29 and 30 are rejected under 35 USC 102(b) as anticipated by or, in the alternative, under 35 USC 103(a) as obvious over Ebinuma et al. (5,577,552).

The Office Action states that it would have been obvious to more precisely control temperature at stations 7 and 8 by controlling each of heaters 16 and 17 in a separate feedback loop such as shown in reference to heater 15 (controller 23, temperature sensor 22).

It is respectfully submitted that the present claim amendments obviate this rejection.

As noted above, the claims as amended relate to a specific construction for monitoring and controlling the temperature of individual workstations, wherein different operating sequences are taken based on the temperature differential of the workstation from the desired temperature of that workstation. If the temperature differential is great, a bypass conduit is used to quickly change the workstation temperature. The use of this bypass allows, for example, much quicker cooling that could be achieved simply by turning off the heater in the flow system. If the temperature differential is small, the heater corresponding to that workstation is simply modulated to provide precise and rapid control.

Ebinuma discloses a temperature controlling device usable in a semiconductor exposure apparatus. This device has as its object "to provide a temperature control device by which, with a simple structure and at high precision, temperature control can be made to plural subjects of temperature control which are placed at different sites." See column 1, line 65 to column 2, line 2. Ebinuma, does not disclose a system that selects different operating sequences based on the temperature differential of the workstation from the desired temperature of that workstation. Further, Ebinuma does not disclose or suggest a bypass conduit to quickly change the workstation temperature if the

temperature differential is great. Ebinuma therefore cannot anticipate the present claims as amended. Further, Ebinuma teaches away from independently monitoring the temperature at each individual workstation and selecting different operating sequences based on the temperature differential, as required in the present claims, since doing so would make the structure more complicated and would contradict their desire to keep the structure simple.

It is respectfully submitted that the present claims as amended clearly distinguish over Ebinuma. Withdrawal of these rejections is respectfully requested.

Claims 28 and 31 have been rejected under 35 USC 103(a) as being unpatentable over the prior art as applied to claims 27 and 29 above, and further in view of JP 62-74112 or Moen or JP 4-371751 or JP 61-27444.

Claims 28 and 31 have been cancelled, and so this rejection formally no longer applies. However, it is noted that the subject matter of claims 28 and 31 has been incorporated into claims 27 and 29. It is respectfully submitted that the disclosures of JP 62-74112 or Moen or JP 4-371751 or JP 61-27444 do not overcome the deficiencies of Ebinuma with respect to claims 27 and 29 as amended. The references as cited each describe the use of bypass systems to feed unheated fluid into a fluid stream coming from a heater source, thereby preventing application of administration of a fluid that is too hot due to heater overshoot conditions. These references do not teach or suggest use of a bypass to rapidly affect the temperature of a workstation because of a large temperature differential of the workstation as compared to an individual predetermined temperature for that workstation as required in the present claims. The present claims thus describe a system that performs a function not contemplated by any of the references. One of ordinary skill would have had no motivation to modify the Ebinuma reference in a manner contrary to the object of that reference. Further, the teachings of the secondary references suggest instead that the function of the bypass is to moderate and more closely control the temperature of the fluid being introduced to the system, not to introduce a rapid temperature change via the bypass as presently required. Withdrawal of this rejection is also respectfully requested.

It is respectfully submitted that new claims 32 and 33 are particularly patentable over the prior art of record, because these claims relate to a concept that is clearly not contemplated by the prior art. More specifically, a unique system is provided wherein an increased amount of the fluid is transported to the workstation through a bypass conduit that bypasses a heater corresponding to the workstation. This increased amount provides for extremely rapid cooling of the workstation is made possible, providing benefit in rapid temperature control that had not been previously contemplated.

It is respectfully submitted that the claims and the present application are now in immediate condition for allowance. Approval of the application and allowance of the claims is earnestly solicited. In the event that a phone conference between the Examiner and the Applicant's undersigned attorney would help resolve any remaining issues in the application, the Examiner is invited to contact said attorney at (651) 275-9811.

Respectfully Submitted,

Dated: December 23, 2002 By:

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## EXHIBIT A

## VERSION WITH MARKINGS TO SHOW CHANGES MADE

The claims have been amended as follows:

27. (amended) A process for individually regulating the temperatures of a plurality of workstations each to an individual predetermined temperature, each workstation for performing an operation on work medium at said workstation, comprising the steps of:

providing a temperature controlling fluid from a source to each of the plurality of workstations,

monitoring the temperature at each individual workstation, and

independently controlling heating of the fluid provided to each individual station in accordance with information comprising a differential between the predetermined temperature and a temperature at each of the respective workstations;

wherein the temperature of at least one workstation is controlled by:

determining a temperature differential between the temperature of the workstation and the individual predetermined temperature, and

selecting an operating sequence based on the temperature differential, so that when the temperature differential is above a predetermined value, an amount of the fluid is transported to the workstation through a bypass conduit that bypasses a heater corresponding to the workstation, and when the temperature differential is below a predetermined value, the heater corresponding to the workstation is modulated in order to maintain the temperature of the workstation without bypassing the heater.

29. (amended) A temperature control system for individually regulating the temperatures of a plurality of semiconductor workstations, the temperature control system comprising:

a central source of a temperature regulating fluid in flow communication with each of the plurality of workstations for transporting fluid to each workstation and independently controlling temperature at each workstation, [and]

a plurality of heaters, each heater being associated with a workstation in a manner effective to heat the fluid transported to one of the individual workstations from the central source, whereby the temperature of the fluid provided to each workstation is controlled independently of fluid transported to other workstations of the system,

a bypass conduit for at least one of the workstations, the bypass conduit allowing the fluid transported to said workstation to bypass the heater corresponding to the particular workstation,

a temperature differential determining system capable of determining the differential between the temperature of the workstation and an individual predetermined temperature. and

a temperature controller capable of selecting an operating sequence based on the temperature differential, so that when the temperature differential is above a predetermined value. an amount of the fluid is transported to the workstation through a bypass conduit that bypasses a heater corresponding to the workstation, and when the temperature differential is below a predetermined value, the heater corresponding to the workstation is modulated in order to maintain the temperature of the workstation without bypassing the heater.